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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,667	11/07/2005	John S. Bambini	026032-4912	3880
22428 7590 03/25/2011 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007				
EXAMINER				
JIANG, YONG HANG				
ART UNIT		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/531,667

**Applicant(s)**

BAMBINI ET AL.

**Examiner**

YONG HANG JIANG

**Art Unit**

2612

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3, 5-19, and 21-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-19 and 21-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-945)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

Applicant's amendment filed 3/29/2010 has been entered. Claims 1, 5, 12, 13, 16, 17, 18, 21, 27, and 28 are amended. Claims 1-3, 5-19, and 21-28 are pending.

### ***Response to Arguments***

Applicant's arguments filed 3/29/2010 have been fully considered but they are not persuasive. Applicant argues on the 4<sup>th</sup> paragraph of page 8 that Neither Dykema or Kirkland disclose, teach or suggest, "a control circuit...configured to retransmit the wireless control signal in response to reception, at the receiver circuit, of the status data." The examiner respectfully disagrees. Dykema teaches a transmitter mounted in a vehicle to send control signals to operate wirelessly controlled systems such as garage door openers. Kirkland teaches periodically sending the status of garage doors to a vehicle sun visor. A user in the system of Dykema and Kirkland may actuate an input on the remote control system to remotely close the garage door, but if the status from the garage door indicates the garage door is still open after a predetermined time such as 5-10 seconds. It would have been obvious for the user to actuate the input on the remote control system again to cause the control circuit to retransmit the close door command again in case there was a signal interference or problems at the garage door opener.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claim 1-3, 6-8, 10-12, 14-19, and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dykema et al. (US 6,091,343), and further in view of Kirkland et al. (US 2002/0180600).

Regarding claim 1, 10, 12, and 17, Dykema discloses a wireless control system for mounting in a vehicle (via remote control system operated by trainable transmitter 43, the system may be installed in a vehicle console, See Fig. 1) for wireless control of a remote electronic system being a garage door opener (See Col. 3, lines 16-20), comprising:

an operator input device configured to receive a user input to actuate the remote electronic system (via pushbutton switches 44, 46, and 47, See Col. 4, line 64 to Col. 5, line 4);

a computer coupled to a vehicle interior element (see figure 1);

a trainable transmitter circuit (via transmitting circuitry on trainable transmitter 43 to transmit signals to operate a garage door, See Col. 8, lines 53-59 and Col. 5, lines 1-4) configured to transmit a wireless control signal to the remote electronic system in response to the user input via the operator input device (via pushbutton switches 44, 46, and 47, See Col. 4, line 64 to Col. 5, line 4), the wireless control signal having control data which will control the remote electronic system (switches 44, 46, and 47 may each be associated with a separate garage door or other device to be controlled, Col. 5, lines 1-4);

a receiver circuit to receive a wireless signal (via receiving antenna 130, See Col. 5, lines 59-65); and

a control circuit coupled to the operator input device, the trainable transmitter circuit and the receiver circuit, the control circuit being configured to transmit the wireless control signal through the trainable transmitter circuit and to receive the wireless signal through the receive circuit (via controller 110 coupled to the transmitter, user interface 120, and the receiver, See Figure 5).

Dykema did not specifically disclose the receiver circuit is further configured to receive a wireless status signal including status data for the remote electronic system sent in response to the wireless control signal; and the control circuit is configured to receive the wireless status signal through the receiver circuit.

Kirkland et al. teach a remote door monitoring system comprising a sensor and a transmitter on an automatic garage door. A transmitter assembly senses and transmits the sensed position of the door position in a periodic manner at a predetermined

transmit interval to a remote receiver. A remote receiver including a receiver module receives the transmitted door position signals and outputs the result to a user. (See the Abstract and Figures 1 and 2; Paragraphs 17-30)

From the teachings of Kirkland, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Dykema to include the receiver circuit is further configured to receive a wireless status signal including status data for the remote electronic system sent in response to the wireless control signal; and the control circuit is configured to receive the wireless status signal through the receiver circuit in order to know the position of the garage door as taught by Kirkland to use a garage door remote monitoring system to know the status of a movable barrier such as a garage door, thereby improving the security of the system.

The combination of Dykema and Kirkland did not specifically disclose the control circuit in the wireless control system is configured to be placed in a receiving mode in response to the user input to actuate the remote electronic system. However, in view of the teachings of Dykema and Kirkland, one of ordinary skill in the art would recognize the need to place the wireless control system in the receiving mode, in response to the user input to actuate the remote electronic system when combining the two references, to see if the remote electronic system has been properly actuated or not. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Dykema and Kirkland to include the control circuit in the wireless control system is configured to be placed in a receiving mode in response

to the user input to actuate the remote electronic system in order to verify the operation of the remote electronic system, thereby improving system security.

The combination of Dykema and Kirkland discloses the control circuit is further configured to retransmit the wireless control signal in response to reception, at the receiver circuit, of the status data (via user of wireless control system receiving status data from garage door remote monitoring system indicating garage door still open, and operates input again on remote control to retransmit command to close garage door).

Regarding claim 2-3 and 19, Dykema discloses the system further comprising a vehicle interior element coupled to the transmitter circuit and the control circuit, wherein the wireless control system is configured for mounting in a vehicle interior, and the vehicle interior element is an overhead console (See Col. 4, line 64 to Col. 5 line 12, and Figure 1).

Regarding claim 6, 16, and 22, Dykema discloses the receiver circuit is further configured to receive a wireless signal, wherein the control circuit is configured to identify and store a data code on the wireless signal (via trainable transmitter learning a new code, See Col. 5, lines 59-65), and wherein the wireless control signal transmitted by the trainable transmitter circuit includes the stored data code (via trainable transmitter transmitting stored learnt code, See Col. 3, lines 17-21).

Regarding claim 7-8, and 14-15, Dykema teaches the system further includes a user interface (120), the user interface includes indicating devices such as LED (48) to display information. (See Col. 5, lines 39-44)

From the teachings of Dykema, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Dykema and Kirkland to include the wireless control system further includes a display configured to display an indicia based on the contents of the wireless status signal, and the display being a light emitting diode as taught by Dykema to use light emitting diodes to display information to a user.

Regarding claim 11, the combination of Dykema and Kirkland teach a system to provide status of a movable barrier; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the wireless status signal is an indication that a garage door has successfully closed in order to allow an operator to see the status of the of the garage door, thereby increasing safety.

Regarding claim 18, the combination of Dykema and Kirkland teach a system to provide status of a movable barrier; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the wireless status signal is an indication that a garage door has not successfully closed in order to allow an operator to see the status of the of the garage door, thereby increasing safety.

Regarding claim 23, Dykema teaches the system further includes a user interface (120), the user interface may include a display for displaying more explicit instructions and information to a user. (See Col. 5, lines 39-44)

From the teachings of Dykema, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Dykema and Kirkland to include the computer further includes a display configured to display an



indicia based on the contents of the wireless status signal in order to provide the information to a user, thereby providing the user feedback on what the status is.

2. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dykema in view of Kirkland as applied to claim 23 above, and further in view of Higginbotham et al. (US 5,896,575).

Regarding claim 24, the combination of Dykema and Kirkland did not specifically disclose the display is a liquid crystal display.

Higginbotham teach a portable electronic device may use conventional liquid crystal display (LCD) technology to display information. (See the Abstract and Figure 1-2; and Col. 3, line 6-7)

From the teachings of Higginbotham, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Dykema and Kirkland to include the display is a liquid crystal display in order to use a conventionally used display, thereby making the display design more simple.

3. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dykema in view of Kirkland as applied to claim 1, and 7-8 above, and further in view of Verzulli (US 6,426,820).

Regarding claim 9, the combination of Dykema and Kirkland did not specifically disclose the light emitting diode is configured to display different colors based on the contents of the wireless status signal.

Verzulli teach using a LED as a visual status indicator (24) on a remote control. The LED may have one or more colors for displaying information. (See Col. 3, lines 34-43)

From the teachings of Verzulli, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Dykema and Kirkland to include the light emitting diode is configured to display different colors based on the contents of the wireless status signal as taught by Verzulli to display different information with different colors.

4. Claim 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dykema in view of Kirkland as applied to claim 17, and 23-24 above, and further in view of Wortham (US 5,905,433).

Regarding claim 25, the combination of Dykema and Kirkland did not specifically disclose the liquid display is configured to display an alphanumeric message based on the content of the wireless status signal.

Wortham teaches alphanumeric codes may be used to uniquely identify information. (See Col. 4, lines 20-28)

From the teachings of Wortham, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Dykema and Kirkland to include the liquid display is configured to display an alphanumeric message based on the content of the wireless status signal in order to uniquely identify a message, thereby avoiding confusion to a user.

Regarding claim 26, the combination of Dykema and Kirkland teach a system to provide status of a movable barrier; therefore, it is obvious to one of ordinary skill in the art at the time the invention was made to include the wireless status signal is an indication that a garage door has successfully closed in order to allow an operator to see the status of the of the garage door, thereby increasing safety.

5. Claim 5 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dykema in view of Kirkland as applied to claim 1-4 and 17-20 above, and further in view of Suman et al. (US 6,028,537).

Regarding claim 5 and 21, the combination of Dykema and Kirkland did not specifically disclose the control circuit is configured to retransmit the wireless control signal when the wireless status signal has not been received within a specified time after entering the receiving mode.

Suman teach a communication and remote control system. A control signal from a control center may be retransmitted to a vehicle if no acknowledgement is received by the control center between a predetermined time period. (See Col. 56, lines 9-29)

From the teachings of Suman, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Dykema and Kirkland to include the control circuit is configured to retransmit the wireless control signal when the wireless status signal has not been received within a specified time after entering the receiving mode as taught by Suman to retransmit a signal if the first transmission is not successful, thereby increasing the chance of successful transmission.

6. Claim 13, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dykema in view of Kirkland as applied to claim 1 and 11-12 above, and further in view of Kackman (US 5,761,206).

Regarding claims 27 and 28, the combination of Dykema and Kirkland discloses receiving a wireless status signal, but did not specifically disclose the wireless status signal indicating that the remote electronic system failed to actuate and a reason for the failure to actuate.

Kackman teaches that in a security or monitoring system with a plurality of sensors, the transmitter on the system may transmit one or more message packets to a system controller, each message packet typically including information about the nature of the problem. (See Col. 1, lines 10-28)

From the teachings of Kackman, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Dykema and Kirkland to include the wireless status signal indicating whether the remote electronic system failed to actuate and a reason for the failure to actuate as taught by Kackman to utilize message packets to provide information on errors, thereby providing more information to a user.

Regarding claim 13, the combination of Dykema and Kirkland discloses receiving a wireless status signal, but did not specifically disclose the wireless status signal indicating a failure of the remote electronic system, and wherein causing the retransmission of the wireless control signal in response to the reception of the wireless

status signal comprises determining that the wireless status signal includes the feedback signal indicating the failure.

Kackman teaches that in a security or monitoring system with a plurality of sensors, the transmitter on the system may transmit one or more message packets to a system controller, each message packet typically including information about the nature of the problem. (See Col. 1, lines 10-28)

From the teachings of Kackman, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Dykema and Kirkland to include the wireless status signal indicating a failure of the remote electronic system, and wherein causing the retransmission of the wireless control signal in response to the reception of the wireless status signal comprises determining that the wireless status signal includes the feedback signal indicating the failure as taught by Kackman to utilize message packets to provide information on errors, thereby providing more information to a user before actuating the input on the remote control system to retransmit the command.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YONG HANG JIANG whose telephone number is (571)270-3024. The examiner can normally be reached on M-F 9:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian A. Zimmerman can be reached on 571-272-3059. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Y. J./  
Examiner, Art Unit 2612

/Brian A Zimmerman/  
Supervisory Patent Examiner, Art Unit 2612